IN THE CLAIMS

Please replace all prior versions, and listings, of claims in the application with the following list of claims:

1.   (Original) A method of increasing throughput of a server capable of servicing at least one TCP/IP connection with a client, the server creating a TCP/IP Transmission Control Block (TCB) stored in non-paged pool (NPP) memory containing information required to identify and to service the client connection, comprising the steps of:

closing a TCP/IP connection;

excluding information from the TCB not required to identify the client connection to form a timed-wait state TCB (TWTCB) for a time-wait period; and

releasing the NPP memory containing the information required to service the client connection.

2.   (Original) The method of claim 1, wherein the step of excluding comprises the step of copying the information required to identify the client connection to form the TWTCB.

3.   (Original) The method of claim 2, wherein the step of releasing the NPP memory containing the information required to service the client connection includes the step of releasing the NPP memory of the TCB required to identify the client connection.

4.   (Original) The method of claim 1, wherein the step of excluding information not required to identify the client connection to form the TWTCB comprises the step of maintaining a minimum of information necessary to avoid late-routed packets forming new connections on the server.

5.   (Currently Amended) The method of claim 1, wherein the step of excluding information not required to identify the client connection to form a TWTCB <u>further</u> comprises the step of establishing a TWTCB of the following structure:

```
struct TWTCB {

#ifdef DEBUG
```

```
            ulong       twtcb_sig;
#endif
            struct TWTCB            *twtcb_next;
            IPAddr   twtcb_daddr;           //Destination IP address.
            ushort   twtcb_dport;           //Destination port.
            ushort   twtcb_sport;           //Source port.
            uint     twtcb_partition;
            ushort   twtcb_delta;
            ushort   twtcb_rexmittimer;
            Queue    twtcb_TWQueue;         //Place to hold all the timed_waits
            uint     twtcb_flags;
            IPAddr   twtcb_saddr;           //Source IP address.
            SeqNum   twtcb_senduna;
#if 0 // TRIM_TWTCBREMOVE
            SeqNum   twtcb_sendnext;
#else
            struct TWTCB            *twtcb_prev
#endif
            SeqNum   twtcb_rcvnext;
            uint     twtcb_phxsum;          //Precomputed pseudo-header xsum.
            DEFINE_LOCK_STRUCTURE(twtcb_lock)

            //ulong     twtcb_refcnt;
            //SeqNum twtcb_sendmax;
            //uchar     twtcb_state;          //State of this TCB.
            //RouteCacheEntry        *twtcb_rce;    //RCE for this connection.
};
```

6.   (Currently Amended) The method of claim 1, wherein the step of excluding information not required to identify the client connection to form a TWTCB further comprises the step of establishing a TWTCB of the following structure:

```
        struct TWTCB {

#ifdef DEBUG
            ulong       twtcb_sig;
#endif
            struct TWTCB            *twtcb_next;
            IPAddr   twtcb_daddr;           //Destination IP address.
            ushort   twtcb_dport;           //Destination port.
            ushort   twtcb_sport;           //Source port.
            ushort   twtcb_delta;
            ushort   twtcb_rexmittimer;
            IPAddr   twtcb_saddr;           //Source IP address.

            //ulong     twtcb_refcnt;
```

```
                //SeqNum    twtcb_sendmax;
                //uchar      twtcb_state;              //State of this TCB.
                //RouteCacheEntry        *twtcb_rce;    //RCE for this connection.
};
```

7.   (Original) The method of claim 1, wherein the step of excluding information not required to identify the client connection comprises the step of forming a TWTCB that occupies less memory than the TCB.

8.   (Original) The method of claim 7, wherein the step of forming a TWTCB that occupies less memory than the TCB comprises the step of forming a TWTCB that occupies approximately 96 bytes of memory.

9.   (Original) The method of claim 7, wherein the step of forming a TWTCB that occupies less memory than the TCB comprises the step of forming a TWTCB that occupies approximately 64 bytes of memory.

10.   (Original) The method of claim 7, wherein the step of forming a TWTCB that occupies less memory than the TCB comprises the step of forming a TWTCB that occupies approximately a single cache line.

11.   (Original) A method for increasing the throughput of a server capable of servicing at least one TCP/IP connection, the server establishing a TCP/IP Transmission Control Block (TCB) of a size and containing information sufficient to identify and service the connection, comprising the steps of:

        closing the at least one TCP/IP connection;

        forming a Timed-Wait TCB (TWTCB) of a size less than the TCB; and

        releasing the TCB for use by the server.

12.   (Original) The method of claim 11, wherein the step of forming a TWTCB comprises the step of copying a portion of the information of the TCB, the portion of information

being sufficient to identify the TCP/IP connection to prevent late routed packets from forming new connections.

13. (Original) The method of claim 12, wherein the TCB occupies approximately 440 bytes of memory, and wherein the step of forming a TWTCB comprises the step of forming a TWTCB that occupies approximately 206 bytes of memory.

14. (Original) The method of claim 12, wherein the TCB occupies approximately 440 bytes of memory, and wherein the step of forming a TWTCB comprises the step of forming a TWTCB that occupies approximately 32 bytes of memory.

15. (Currently Amended) The method of claim 11, wherein the step of forming a TWTCB further comprises the step of forming a TWTCB having the following structure:

```
struct TWTCB {

#ifdef DEBUG
    ulong       twtcb_sig;
#endif
    struct TWTCB            *twtcb_next;
    IPAddr  twtcb_daddr;        //Destination IP address.
    ushort  twtcb_dport;        //Destination port.
    ushort  twtcb_sport;        //Source port.
    uint    twtcb_partition;
    ushort  twtcb_delta;
    ushort  twtcb_rexmittimer;
    Queue   twtcb_TWQueue;      //Place to hold all the timed_waits
    uint    twtcb_flags;
    IPAddr  twtcb_saddr;        //Source IP address.
    SeqNum  twtcb_senduna;
#if 0 // TRIM_TWTCBREMOVE
    SeqNum  twtcb_sendnext;
#else
    struct TWTCB            *twtcb_prev
#endif
    SeqNum  twtcb_rcvnext;
    uint    twtcb_phxsum;       //Precomputed pseudo-header xsum.
    DEFINE_LOCK_STRUCTURE(twtcb_lock)

    //ulong   twtcb_refcnt;
    //SeqNum twtcb_sendmax;
```

```
           //uchar      twtcb_state;            //State of this TCB.
           //RouteCacheEntry      *twtcb_rce;    //RCE for this connection.
};
```

16.   (Currently Amended) The method of claim 11, wherein the step of forming a TWTCB <u>further</u> comprises the step of forming a TWTCB having the following structure:

```
           struct TWTCB {

           #ifdef DEBUG
                 ulong      twtcb_sig;
           #endif
                 struct TWTCB          *twtcb_next;
                 IPAddr    twtcb_daddr;          //Destination IP address.
                 ushort    twtcb_dport;          //Destination port.
                 ushort    twtcb_sport;          //Source port.
                    ushort twtcb_delta;
                 ushort    twtcb_rexmittimer;
                 IPAddr    twtcb_saddr;          //Source IP address.

                 //ulong      twtcb_refcnt;
                 //SeqNum twtcb_sendmax;
                 //uchar      twtcb_state;            //State of this TCB.
                 //RouteCacheEntry      *twtcb_rce;    //RCE for this connection.
};
```

17.   (Original) The method of claim 11, wherein the step of forming a TWTCB comprises the step of copying a portion of the information of the TCB, the portion of information being insufficient to service the TCP/IP connection.

18.   (Original) A computer readable medium having computer-executable instructions for performing steps, comprising:

        closing a TCP/IP connection;

        copying less than all information stored in a TCP/IP Transmission Control Block (TCB) into a Timed-Wait TCB (TWTCB); and

        maintaining the TWTCB for a timed wait period to avoid late routed packets from establishing a new connection with a server.

19.   (Original)   The computer-readable medium of claim 18, wherein the step of copying less than all the information stored in a TCB into a TWTCB comprises the step of copying information sufficient to uniquely identify the TCP/IP connection.

20.   (Original)   The computer-readable medium of claim 18, further comprising the step of releasing memory used to store the TCB for use by the server after the step of copying less than all of the information stored in the TCB into a TWTCB.

21.   (Original)   The computer-readable medium of claim 18, wherein the step of copying less than all the information stored in a TCB into a TWTCB results in a structure for the TWTCB that fits on one cache line.

22.   (Currently Amended) A computer-readable medium having stored thereon a data structure, ~~consisting essentially of:~~ wherein the data structure contains a number of computer-executable instructions, that, when executed on a computer, exclude information not required to identify a client connection, the data structure comprising:

```
struct TWTCB {

#ifdef DEBUG
    ulong       twtcb_sig;
#endif
    struct TWTCB              *twtcb_next;
    IPAddr    twtcb_daddr;          //Destination IP address.
    ushort    twtcb_dport;          //Destination port.
    ushort    twtcb_sport;          //Source port.
    uint      twtcb_partition;
    ushort    twtcb_delta;
    ushort    twtcb_rexmittimer;
    Queue     twtcb_TWQueue;        //Place to hold all the timed_waits
    uint      twtcb_flags;
    IPAddr    twtcb_saddr;          //Source IP address.
    SeqNum    twtcb_senduna;
#if 0 // TRIM_TWTCBREMOVE
    SeqNum    twtcb_sendnext;
#else
    struct TWTCB              *twtcb_prev
#endif
    SeqNum    twtcb_rcvnext;
```

```
uint        twtcb_phxsum;        //Precomputed pseudo-header xsum.
DEFINE_LOCK_STRUCTURE(twtcb_lock)

//ulong      twtcb_refcnt;
//SeqNum twtcb_sendmax;
//uchar      twtcb_state;           //State of this TCB.
//RouteCacheEntry        *twtcb_rce;    //RCE for this connection.
};
```

23.   (Currently Amended) A computer-readable medium having stored thereon a data structure, consisting essentially of: wherein the data structure contains a number of computer-executable instructions, that, when executed on a computer, exclude information not required to identify a client connection, the data structure comprising:

```
struct TWTCB {

#ifdef DEBUG
    ulong      twtcb_sig;
#endif
    struct TWTCB            *twtcb_next;
    IPAddr    twtcb_daddr;          //Destination IP address.
    ushort    twtcb_dport;          //Destination port.
    ushort    twtcb_sport;          //Source port.
        ushort twtcb_delta;
    ushort    twtcb_rexmittimer;
    IPAddr    twtcb_saddr;          //Source IP address.

//ulong      twtcb_refcnt;
//SeqNum twtcb_sendmax;
//uchar      twtcb_state;           //State of this TCB.
//RouteCacheEntry        *twtcb_rce;    //RCE for this connection.
};
```